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Annex No. DEA-D-06-IS-0010

To the Master Defense Development Data Exchange Agreement

Between

The United States of America Department of Defense

And

Israeli Ministry of Defense

On

Chemical and Biological Warfare Defense

Modeling and Simulation

(Short Title: DEA-D-06-IS-0010)

THIS DOCUMENT IS CERTIFIED TO BE A TRUE COPY
CERTIFIED BY: Dr. S. Bosco

This is a true copy of DEA-D-06-IS-0010 as signed & Rb OC

ANNEX NO. DEA-D-06-IS-0010

TO THE MASTER DEFENSE DEVELOPMENT DATA EXCHANGE AGREEMENT

BETWEEN

THE UNITED STATES OF AMERICA DEPARTMENT OF DEFENSE

AND

ISRAELI MINISTRY OF DEFENSE

ON

CHEMICAL AND BIOLOGICAL WARFARE DEFENSE
MODELING AND SIMULATION

Pursuant to the terms and conditions of the Master Defense Development Data Exchange Agreement (MDDDEA) between the Government of the United States of America and the Government of Israel, signed December 22, 1970, the Parties hereby establish the following Data Exchange Annex:

1. DESCRIPTION AND CLASSIFICATION:

a. Scope: This Annex provides for the exploratory reciprocal exchange of basic research and development (R&D), i.e., non-system and technology demonstration specific research, tests, studies, and evaluation information concerned with chemical and biological (CB) modeling and simulation (M&S) and science, for protective purposes only, including, but not limited to:

(1) Transport and dispersion (T&D):

(a) Methodologies for evaluating the transport and dispersion of chemical and biological warfare (CBW) agents in urban areas (cities) including both exterior and building interior transport.

(b) Methodologies for evaluating the transport and dispersion of CBW agents in complex terrain and vegetative canopies.

(c) Methodologies for evaluating transport and dispersion of CBW agents released at high altitudes and from defensive intercept of missiles bearing CBW agents.

(d) Applicability of Computational Fluid Dynamics (CFD) models to establish benchmark comparisons of transport and

dispersion models.

(2) Evaporation of chemical agents from various surfaces:

(a) Concrete;

(b) Asphalt;

(c) Soil; and

(d) Vegetation.

(3) Prediction of the deposition pick-up, decay, and weathering of CB agents.

(4) Prediction of the re-aerosolization of biological agents:

(a) From natural causes; and

(b) From man-made causes.

(5) Methodologies for assessing the effectiveness of protective measures and systems.

(6) Methodologies to predict the effectiveness of decontamination of CBW agents deposited on various surfaces.

(7) Operational effect under CBW threat/attack.

(8) Data from laboratory experiments and field trials of equipment or materials assisting in calibration or validation of the models, predictions, and methodologies discussed herein.

(9) Software executable codes for the appropriate modeling and simulation.

(10) Conflict analysis in the tactical, operational, and theatre levels.

(11) Models for prediction of the spread and propagation of biological weapon agents induced disease.

(12) Other topics related to CBW M&S.

b. The highest classification of data to be exchanged is SECRET.

c. Note that the Defense Threat Reduction Agency (DTRA) manages the Chemical and Biological Defense Program's Joint Science and Technology Office (JSTO). Oversight of JSTO is the responsibility of the Special Assistant for Chemical and Biological Defense & Chemical Demilitarization Programs (SA(CBD&CDP)). Any information exchange pertaining to research funded through this DoD program must be coordinated through DTRA and approved by the SA(CBD&CDP).

2. ESTABLISHMENTS AND AUTHORITIES CONCERNED:

a. For the Government of the United States:

(1) Establishments:

(a) U.S. Defense Attaché Office
U.S. Embassy Tel Aviv, Israel
APO New York 09672

(b) Defense Threat Reduction Agency
8725 John J. Kingman Road, MSC-6201
Fort Belvoir, VA 22060-6201

(c) Joint Program Executive Office for Chemical and Biological Defense
5203 Leesburg Pike
Skyline 2 Suite 800
Falls Church, VA 22041

(d) Missile Defense Agency
7100 Defense Pentagon
Washington, DC 20301-7100

(e) Naval Surface Warfare Center
Dahlgren Division, Code B51
17320 Dahlgren Road
Dahlgren, VA 22448-5100

(f) Office of Naval Research
800 N. Quincy Street
Arlington, VA 22217-5660

(g) Air Force Research Laboratory
2245 Monahan Way
WPAFB, OH 45433-7708

(h) Edgewood Chemical and Biological Center
5183 Black Hawk RD
APG, MD 21010-5424

(i) U.S. Army Research Laboratory
2800 Powder Mill RD
Adelphi, MD 20783-1197

(2) Authorities:

(a) Project Officer:

Director, Chemical/Biological Programs
DTRA-JSTO
8725 John J. Kingman Road, MSC-6201
Fort Belvoir, VA 22060-6201

(b) Technical Project Officer:

Capability Area Program Officer, Modeling and Simulation and Battlespace Management
Physical Science and Technology Division
DTRA-JSTO
8725 John J. Kingman Road, MSC-6201
Fort Belvoir, VA 22060-6201

(c) Associate Technical Project Officer:

Thrust Area Manager, Environmental Hazard Prediction
Modeling and Simulation and Battlespace Management Capability Area
Physical Science and Technology Division
DTRA-JSTO
8725 John J. Kingman Road, MSC-6201
Fort Belvoir, VA 22060-6201

(d) Assistant Technical Project Officer:

Deputy Director, Science and Technology
Chemical/Biological Programs DTRA-JSTO
8725 John J. Kingman Road, MSC-6201
Fort Belvoir, VA 22060-6201

b. For the Government of Israel:

(1) Establishments:

(a) Research and Development Attaché
Office of the Defense and Armed Forces Attaché
Embassy of Israel
3514 International Drive NW
Washington, DC 20008

(b) Ministry of Defense of Israel
Director of Defense R&D (MAFAT)
Hakirya, 61909 Tel Aviv, Israel

(c) NBC Protection Division
Hakirya, 61909 Tel Aviv, Israel

(d) Israel Air Force
Hakirya, 61909 Tel Aviv, Israel

(e) NBC School
Israel Defense Forces

(f) IDF Home Front Command

(g) Israel Institute for Biological Research
74100 Ness Ziona

(2) Authorities:

(a) Project Officer:

Research and Development Attaché
Office of the Defense and Armed Forces Attaché
Embassy of Israel
3514 International Drive NW
Washington, DC 20008
USA

(b) Technical Project Officer:

Head, Applied Mathematics Department
Israel Institute for Biological Research
74100 Ness Ziona
Israel

(c) Ministry of Defense
Directorate of Defense R&D (MAFAT)
Ministry of Defense of Israel
Hakirya, 61909 Tel Aviv
Israel

3. CHANNELS OF CORRESPONDENCE, VISITS AND REQUESTS FOR INFORMATION: Correspondence, visits, and requests for information between the Parties will be transmitted through the channels for correspondence prescribed in paragraph 3 of the Master Defense Development Data Exchange Agreement (MDDDEA), except that the point of contact shall be the U.S. Technical Project Officer, in lieu of the Project Officer. The U.S. Technical Project Officer has been delegated limited authority to address these matters.

4. RECIPROCITY OF INFORMATION EXCHANGE: Information exchanges will take place on a reciprocal basis, so that the overall value of information exchanged is approximately equivalent, taking into consideration criteria such as quality, quantity, and program schedules. The Parties further recognize, however, that information exchanges may not necessarily coincide in time. The Project Officers will jointly address any dispute regarding an alleged imbalance.

5. RESOURCE REQUIREMENTS: Each Party shall be responsible for its own costs in the performance of this Annex. Each Party's commitment to performance is subject to the availability of funds.

6. RESTRICTIONS PLACED ON PRODUCTION AND SOFTWARE DEVELOPMENT AND EXCHANGE OF INFORMATION TO A THIRD COUNTRY:

a. Data provided under this Annex shall be safeguarded and shall not be further disseminated without prior written approval. All information exchanges under this DEA prohibit the exchange of manufacturing or production data or software development know-how, including weapon system computer software, weapon system-related computer software, weapon system computer software documentation, or the exchange and/or provision of defense equipment or services.

b. Information provided under this Annex shall be used for military and/or homeland security purposes only.

7. DURATION: This Annex shall terminate five (5) years from the date of its execution, unless earlier amended or terminated, or unless the MDDDEA is earlier terminated. An expiration of this Annex should be confirmed through exchange of correspondence between Project Officers. However, when it is considered necessary or beneficial for both Parties to extend this Annex, it may be extended for an additional five years by written agreement by both Parties before its expiration. This Annex may be

terminated by either signatory by providing written notice at least 60 days in advance of the proposed termination. It may be amended by the written agreement of both signatories.

IN WITNESS THEREOF, the duly authorized officials of the two Parties have executed this Annex (DEA-D-06-IS-0010, Chemical and Biological Warfare Defense Modeling and Simulation) to the Master Defense Development Data Exchange Agreement (MDDDEA) between the United States Department of Defense and the Israeli Ministry of defense as of the last date indicated below. This Annex will enter into force upon the date on which the last signature is affixed below.

FOR THE ISRAELI MINISTRY OF DEFENSE

S. Chorev

Shaul Chorev, RADM(ret)
Assistant Minister of Defence
For NBC Defence

7 February 2006
Date

Defense Threat Reduction Agency
Fort Belvoir, VA, USA
Location

FOR THE UNITED STATES DEPARTMENT OF DEFENSE

Charles R. Gallaway
Director, Chemical/Biological Defense
Defense Threat Reduction Agency

7 February 2006
Date

Defense Threat Reduction Agency
Fort Belvoir, VA, USA
Location